

Comment on Federal Communications Commission  
Joint Staff Paper Regarding Unlicensed Devices and Associated Regulatory Issues

ET Docket No. 03-126

1. These comments are in response to FCC's Public Notice seeking Comment on the Joint Staff Paper Regarding Unlicensed Devices and Associated Regulatory Issues.
2. I am an Assistant Professor at the University of Miami. My research focuses on the intersection of regulation and competition, with a current focus on telecommunications.
3. The Staff Paper correctly highlights the importance of unlicensed spectrum and its discussion can be placed within the broader debate of "exclusive use" and "commons" models of spectrum allocation. The "exclusive use" model effectively gives property rights to license holders. While this has the benefit of preventing interference, it also presents the risk that license holders will be able to squelch competition by excluding uses of the spectrum more conducive to consumer welfare. This is especially relevant given that spectrum should be part of the public trust.
4. The authors' discussion of the impressive success of unlicensed devices despite the telecommunications crash is an example of the power of having regulation that allows competition to flourish rather than entrenches incumbents.
5. The Staff Paper is also prescient in pointing out the need to develop a flexible regulatory framework that evolves with technology. I would emphasize the need to be able to migrate increasing amounts of spectrum to unlicensed use as the technology develops (e.g., permitting only temporary licenses in the "exclusive use" portion of the spectrum, imposing mandatory resell requirements on license holders).
6. The Paper also seems congruent with other encouraging studies and pronouncements from the FCC. For example, the Spectrum Policy Task Force began highlighting the need for a mix between the "exclusive use" and "commons" models. In addition, the Commission has recently made available additional spectrum for unlicensed use in the 5GHz band.
7. The FCC should experiment even further with unlicensed spectrum. Under current technology, prime spectrum remains in the 3MHz to 3GHz range (e.g., ability to penetrate walls, less stringent power transmission requirements). As discussed in greater detail in a previous filing,<sup>1</sup> I would encourage the FCC to devote a significant portion of prime spectrum to unlicensed use, without placing the power restrictions inherent in Part 15 of the C.F.R. This would enable experimenting with a broad variety of uses, including wireless carriage. With the advent of software-defined

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<sup>1</sup> Reza Dibadj, Public Comment on Federal Communications Commission Spectrum Policy Task Force Report (ET Docket No. 02-135), 2002.

radios, mesh networks and the like, it is quite likely that unlicensed spectrum technology will advance well beyond cordless phones, wireless LANs, and small appliances to applications that require greater power.

- a. Some experts argue that a flexible regulatory regime would be impractical since it would create uncertainty. There is, however, substantial support in the academic literature that firms, even those in capital-intensive industries, should learn to manage risk without relying on government largesse.
  - b. Similarly, other commentators argue that to the extent some incumbents would need to be relocated, they deserve compensation. However, this is hard to square with the reality that most incumbents (especially in the broadcast bands) have enjoyed exclusive free use of public airwaves since the 1930s.
8. Enhancing consumer welfare should be the goal of this experimentation. For example, consumers would have a choice between potentially less reliable and cheaper unlicensed wireless services versus more expensive licensed services.<sup>2</sup> I would also encourage the FCC to consider how it could facilitate the development of a robust equipment market, much like what consumers enjoy in the telephony market. Further encouraging standards development could be a first step in this direction.
  9. I have written an article, entitled “Regulatory Givings and the Anticommons” which is forthcoming in the *Ohio State Law Journal*. It discusses restrictive spectrum licensing as one example of how regulatory largesse can unwittingly serve as a mechanism that hinders competition. In addition, I would be pleased to provide further information to the extent it might be helpful to the FCC.

June 9, 2003

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<sup>2</sup> See p. 46 of the Report for an analogous example that contrasts walkie-talkies to traditional cellular phone calls.